

- [54] **BIOLOGICALLY STABILIZED
COMPOSITIONS COMPRISING COLLAGEN
AS THE MAJOR COMPONENT WITH
ETHYLENICALLY UNSATURATED
COMPOUNDS USED AS CONTACT LENSES**

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523/108; 523/449; 524/21; 524/23; 524/704;
525/937**

[58] Field of Search **523/106, 108, 449;
524/21, 23, 704; 525/937; 351/160 H**

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[57] **ABSTRACT**

Biologically stabilized compositions are prepared by subjecting to polymerization conditions an aqueous admixture comprising from 50 to about 70 weight percent solubilized collagen and from about 30 to less than 50 weight percent of an organic compound which is characterized by a polymerizable ethylenic group ($>C=C<$) as illustrated by N,N-dimethylacrylamide, 2-hydroxyethyl methacrylate, dimethylaminoethyl methacrylate or methoxytriethylene glycol methacrylate. The reactants employed are at least partially soluble in the aqueous reaction medium. The hydrogels thus prepared can be in the form of novel shaped articles having utility in the medical and cosmetic fields. Such hydrogels exhibit good biological stability, high water content, high oxygen permeability and sufficient mechanical strength characteristics to be useful as contact lenses.

29 Claims, No Drawings